

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



56
py3

and **Soil Water Conservation**

United States
Department of
Agriculture

Soil
Conservation
Service

APRIL 1990

Volume 11, Number 1



Earth Team
Volunteers



Comments from the SCS Chief:

Soil and Water Conservation News is the official magazine of the Soil Conservation Service. The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Soil and Water Conservation News* has been approved by the Director of the Office of Management and Budget. *Soil and Water Conservation News* (ISSN-0199-9060) is published 12 times a year. Postage paid at Washington, D.C.

Clayton Yeutter
Secretary of Agriculture

Wilson Scaling
Chief, Soil Conservation Service

All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Leslie Jane Wlder
Editor

Paul DuMont
Associate Editor

Kathleen Diehl and
Kim Berry-Brown
Contributing Editors

Christopher Lozos
Design Consultant

Magazine Inquiries

Send inquiries to: The Editor, *Soil and Water Conservation News*, Public Information Division, Soil Conservation Service, U.S. Department of Agriculture, P.O. Box 2890, Washington, DC 20013-2890.

Subscriptions
\$8.50 per year domestic; \$10.65, foreign. Send subscription orders to: Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402

Reprint permission
Content of this magazine may be reprinted without special permission. Mention of source is requested. Photos available on request.

Commercial names
Mention of commercial enterprises or brand names does not constitute endorsement or imply preference by the U.S. Department of Agriculture.

Volunteers Have Helped SCS from the Start

This year's commemoration of April as National Volunteer Month takes on special significance because it is also the 20th anniversary of Earth Day. Volunteerism has been a cornerstone of the soil and water conservation movement. It began with the organization of conservation districts in 1937 and has expanded to include a special cadre of volunteer citizens—the Soil Conservation Service's Earth Team.

Last year, volunteers in SCS's Earth Team contributed more than 300,000 hours of service. The Earth Team more than doubled its members in 1989. In the 4 years of its existence, the volunteer program has grown to almost 13,000 people.

If you add the hours volunteered by the Earth Team to the uncalculated number of hours volunteered by America's conservation district officials, they will add up to a tremendous force of people working to conserve our country's natural resources.

In caring for the Earth, we need to remember our primary goal: that is, to make this world a better place for people and to protect the resources for future generations. Farmers and ranchers who practice soil and water conservation are the ultimate environmentalists, in my opinion. It is those people who put their energy and their money into positive actions to maintain the basic resources that sustain the productivity of our cropland and the quality and quantity of our water.

Volunteers are key members of the conservation team that assists land users in practicing conservation. Volunteers have been a tremendous help with the effort to help producers retain USDA program eligibility under the 1985 Farm Bill. They have filled in and helped shore up our excellent work force wherever needed. They have done everything SCS employees normally do—from assisting with design and layout of practices, to computer inputting and programming, to providing public information and conservation education.

Volunteerism is as American as apple pie. People like to volunteer. It makes them feel good, and it fulfills a public need. Volunteering is good for people and for the Earth. I commend those who do, and recommend it for those who haven't yet. One thing for sure, volunteers will continue to be important members of the conservation team.





Earth Team

Alabama Wins National Award

IT'S OFFICIAL! The Jefferson County, Ala., Soil and Water Conservation District is this year's winner of the National NACD/SCS Earth Team Award. Presented in February, this award honored the Team—volunteers, district officials, and professional staff—that best met local needs and priorities through effective use of volunteer resources.

The Jefferson County winners volunteered nearly 2,600 hours in conservation planning assistance, conservation education, public relations, and water quality activities during Fiscal Year 1989.

Joan Harper, SCS's Alabama volunteer coordinator, said, "Our Earth Team program has become so large and diverse that the district board hired a part-time employee to work 3 days a week to manage Earth Team activities."

The Team helped in SCS field activities that included preparing conservation plans, providing field survey assistance, distributing soil surveys and soil testing supplies, and inputting computer resource data.

For example, one Earth Team volunteer worked on water quality projects. He conducted water quality sampling on Rural Abandoned Mine Program sites and ana-



lyzed water discharge from construction sites. He also assisted with engineering field surveys and a slide show on storm water management.

In the area of conservation education, the Team conducted a conservation education canoe float, poster contests, and education tours, and developed an outdoor classroom. They also helped prepare conservation education curriculums.

Channel 13, in Birmingham, Ala., aired weekly public service announcements, news specials, and 30-minute program specials about conservation. The programs were shown in 23 counties throughout Alabama, and station employees responsible for the programs joined the Earth Team.

Some Earth Team volunteers provided support by assisting with filing, time keeping, and software training.

One of Jefferson County's Earth Team activities was sponsoring a conservation education canoe ride down the Cahaba River. Over 200 people participated. (Photo by Ben Kimmerling.)

The winner of the National NACD/SCS Earth Team Award is selected by the National Association of Conservation Districts (NACD) president and the SCS chief. The winner was chosen from more than 40 entrants who each won their individual State's nomination.

Judging criteria includes effectiveness in addressing and meeting local priorities, community spirit involvement, what the volunteer work accomplished, the quality of work, specific short- and long-term results, innovativeness and/or uniqueness of the Team's total effort, and total hours donated by volunteers.

Kim Berry-Brown, contributing editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

Volunteers

Volunteers Tripled Production

WHEN THE SUBJECT of a "can do" attitude comes up, the Earth Team in the Yankton County Conservation District (CD) in South Dakota takes the prize. Volunteers there contributed almost 1,400 hours of service.

The district and the Soil Conservation Service staffs identified their high priority projects for Fiscal Year 1989, assessed their resources, and turned to Earth Team members. The result was a three-fold increased production on these projects.

Earth Team members Johnnie Whitley and Mike McCommon entered all highly erodible land (HEL) plans into the field office Computer Assisted Management and Planning System. They scheduled HEL plan followup field work.

McCommon also developed computer-generated letters and reports, and he helped with the survey, layout, and checkout of conservation practices and wind-breaks. Whitley, with his volunteer work, gained the experience needed to qualify for a temporary, part-time position with SCS.

Orville Kirchner, a retired SCS technician, and Francis "Gene" Ridenour, a retired electrician, helped the district initiate a water quality study for the Beaver Creek/State Lake Watershed Area. They took responsibility for coordinating the \$62,000 interagency study and mapped the watershed in detail, establishing over 2,000 40-acre sample units for analysis.

This watershed was one of nine water quality projects approved by the State Conservation Commission for technical assistance grants to accelerate planning in hydrologic unit areas.

According to Bill Milliken, SCS State conservationist for South Dakota, Commission funds were matched by SCS technical assistance to prioritize the coordinated hydrologic unit planning.

Kirchner and Ridenour helped

initiate hydrologic unit planning by mapping unit boundaries and working with surrounding conservation districts to establish responsibilities for shared hydrologic units. The volunteers involved other government agencies and helped plan and coordinate the first public input meeting in the Beaver Creek Hydrologic Unit.

"We're proud of these accomplishments," said Bill Schramm, Yankton County Conservation District chairman. "We look at this project area as a model for other water quality efforts."

Among the Yankton County Earth Team volunteers were two high school students, Mark Vellek and Jerry Repp. As SCS conservation aides during the summer, they helped apply conservation practices, helped with weed control followup on Conservation Reserve Program (CRP) land, and assisted with office work.

According to Karl Whitmore, district conservationist in Yankton, most of the volunteers were recruited through the Green Thumb and Summer Youth Programs and through the South Dakota State Prison Community Service Program.

"The Earth Team has been an outstanding extension for the Yankton County Conservation District and the SCS field office," said Milliken. "I was pleased to present this field office with the State's 1989 Earth Team Award for utilizing volunteers and other outside resources. This office exemplified the Earth Team objectives."

Joyce Watkins, public affairs specialist, SCS, Huron, S. Dak.



The "can-do" Earth Team from Yankton, S. Dak., consists of (left to right) Orville Kirchner, Mike McCommon, Karl Whitmore, SCS district conservationist, Johnnie Whitley, and Gene Ridenour.

"One of the best things...was to appoint...Ben Castilla, to coordinate the volunteer effort. He was the heart of the community outreach program."

Community Outreach Gets Job Done

AN AGGRESSIVE community outreach program was the key that earned the Franklin County Conservation District (CD) Earth Team the Washington State nomination for the 1989 National NACD/SCS Earth Team Award. They also earned a valued local civic award from the Pass Keys/70001 Program.

"We knew we had to generate some volunteer help or we'd never have been able to handle the workload," said Paul Castoldi, SCS district conservationist in Pasco. "We worked hand-in-hand with the Franklin County CD, and I think we put together an outstanding Earth Team that proved to be up to the challenge."

The Pasco SCS'ers and Franklin County CD went about recruiting an Earth Team very systematically. First, they sat down and discussed goals and objectives of the volunteer program. Then they identified potential jobs that volunteers could do. Finally, they wrote job descriptions for tasks that had been identified.

"One of the best things I did, at that point," said Castoldi, "was to appoint one of my soil conservation technicians, Ben Castilla, to coordinate the volunteer effort. He



was the heart of the community outreach program."

Castilla contacted every organization in the community from the senior citizen Green Thumbs to several high school programs, including the Pass Keys/70001 Program geared toward encouraging students to finish high school. He was very frank in his appeal: "Hey, we need help with our conservation and natural resource programs, and we are looking for Earth Team volunteers."

Castilla put together a team of 20 people who volunteered more than 1,500 hours. They assisted with wildlife habitat enhancement, data-entry of over 700 case files into the Computer Assisted Management and Planning System (CAMP), preparation of folders and materials for highly erodible land determinations and Conservation Reserve Program eligibility, windbreak installation, soil surveys, and water quality grants.

The Earth Team's assistance in Franklin County ensured that conservation planning deadlines for compliance with the 1985 Food Security Act conservation provisions were met.

Two volunteers, Eric Lane, and Vieghong Bouattavong, from the PASSKEY/7001 Summer Youth Program help to measure a site for Conservation Reserve Program certification. They are part of an award-winning Earth Team in the State of Washington.

"Not only did the Earth Team provide an invaluable service to the conservation effort, but the volunteers got a taste of on-the-job experience," said Jerry Jacoby, SCS area conservationist.

It was this specific job experience that earned the Earth Team the Pass Keys/70001 Program award.

"This was an important award for us," said Castoldi. "The Pass Keys program directors told us that high school students benefited most in learning job skills and responsibilities."

"They told us we were one of the better employers because we held the students responsible for showing up as scheduled and for getting the job done. They told us we presented a 'real-world' situation."

"What they didn't know is that it *was* a real-world situation. Without the assistance of the Earth Team, we probably couldn't have done it!"

Nance Dunn, public affairs specialist, SCS, Washington, D.C.

Headquarters volunteers...a diverse and international group...[share a] common concern...conservation of natural resources.

Volunteers Assist at National Headquarters

VOLUNTEERS ARE responding to the Soil Conservation Service's call for help and have proved to be valuable additions to the SCS National Headquarters staffs.

Thirty-four volunteers gave 2,144 hours in 1989 in a variety of jobs that supported field operations and the SCS mission.

Headquarters volunteers are a diverse and international group. They chose to volunteer for many different reasons, but the common concern they share is conservation of natural resources. From their efforts in supporting SCS goals

have come a variety of rewards—for SCS and the volunteers.

Eddie Scher, a George Washington University student, worked for the ecological sciences division. "I've had a great experience at SCS," Scher said. "I earned college credits in my major, environmental sciences, and gained a closeup view of my chosen field."

Major projects he worked on included compiling data on State water quality tests with biotic indicators, entering environmental impact statements into a computer program he helped design, and compiling a notebook of SCS policy materials.

Earth Team volunteer Louise Henslee said, "Volunteering at the SCS National Headquarters has provided an excellent opportunity for me to work in my field of interest."

Henslee earned her master's degree in agricultural economics at the University of California. She moved to Washington, D.C., and volunteers her time in research

and analysis for the economics and social sciences division.

Gregg Donaldson has a talent for writing and editing. Having cerebral palsy has not stopped him from volunteering in the public information division in order to gain experience and exposure for a future job.

Marisabel Quintero, from Colombia, is a graduate student at American University. She helps with office projects in the international conservation division and volunteer services because she wants to learn about the agency.

Nilo Rubin, from the Phillipines, came to SCS with an accounting and computer background. He needed a paying job, but signed on as a volunteer in the financial management and engineering divisions to gain work experience in the United States. The experience he received helped him get a job within 6 weeks at a local bank.

Fabian Makan, of Kenya, inputted international travel data into a special computer program for the international conservation division. He credited his job offer from the private sector to the hands-on experience he received from SCS.

SCS Chief Wilson Scaling hosted a "coffee" for the volunteers last fall to recognize their contributions. Twenty-six volunteers, their supervisors, and division directors attended. They enjoyed sharing volunteer success stories and the opportunity to meet the Chief, members of the SCS staff, and fellow volunteers.

Mary Ramey, volunteer coordinator, SCS, Washington, D.C.



Louise Henslee volunteers in the NHQ economics and social sciences division, where she does research and analysis work. (Photo by Ron Nichols.)

The First Volunteers

SOIL AND WATER conservation efforts have long relied on volunteers. People are willing to donate time because they view these efforts as humanitarian activities that benefit not only the present, but also the future.

The small band of soil conservationists who went to work for the Soil Conservation Service in the 1930's took the lead in putting into action some new ideas about conserving soil. Some of the farming methods they advocated were new to their part of the country.



When soil and water conservation districts were formed, these "first volunteers" became the district directors and supervisors.

The SCS staff looked for volunteers among the local farmers and ranchers to help them get support for these methods. These early converts to conservation tried the practices and recruited friends and neighbors to participate in conservation farming. Having friends and neighbors applying methods successfully made acceptance more likely.

When soil and water conservation districts were formed, these "first volunteers" became the district directors and supervisors. The concept of the soil and water conservation district was espoused in 1937 in a Standard Soil Conservation District Law.

Milburn Lincoln ("M.L.") Wilson, Assistant and later Under Secretary of Agriculture between 1934 and 1940, developed many of

the ideas in the law establishing districts, and he directed the drafting of it. Wilson believed firmly that some local, voluntary involvement in a program such as soil and water conservation would be necessary to the success of the movement.

President Franklin D. Roosevelt forwarded the law to State governors with the request that "I hope you will see fit to make the adoption of legislation along the lines of the Standard Act part of the agricultural program for your state."

The district volunteers, the State associations, and the National Association of Conservation Districts had much to do with getting the new program accepted and sustained. The voluntary service of district directors and supervisors has been crucial to maintaining the Federal commitment to soil and water conservation. Today, there are nearly 3,000 soil conservation districts whose directors and supervisors serve without remuneration—they are SCS's first line of volunteers.

Douglas Helms, national historian, SCS, Washington, D.C.

At a group conservation planning meeting in the 1950's, Darrel Davis (standing), SCS soil conservationist, advises Nebraska farmers on their options in the home of Glen Hassenhor (second from right).

While in Louisiana, [volunteer] Mathieu [from France] did soil sampling, soil mapping...and cartographic work.

Le Volontaire Francais

BON JOUR. I'm Renaud Mathieu from France." With those words, Mathieu became the first official Soil Conservation Service volunteer from France to work in the United States.

Mathieu arrived in the United States in August 1989 on a 2-month visa. He spent those 2 months as a volunteer at the SCS State office in Alexandria, La., under the direction of Arville Touchet, SCS State soil scientist.

While in Louisiana, Mathieu did soil sampling, soil mapping in the field, and cartographic work for Touchet. He also worked with the SCS State forester, agronomist, and biologist.

Of the three disciplines, Mathieu enjoyed biology the most. He studied wetlands, ecosystems, and lakes. He wants to come back to the United States to continue to study biology.

Mathieu became interested in soils and conservation at a young age because his father was involved in soils work. He spent his childhood with his family in Africa—in Morocco, Burundi, and the Republic of Central Africa.

"I'm very proud of my father," Mathieu said. "At Cornell University, he helped translate the 'Keys to Soil Taxonomy' into French for use in Africa and other areas."

Touchet first met Clement Mathieu (Renaud's father) at an international forum in Burundi.



Renaud Mathieu (left) is the first volunteer from France to work in the United States. Arville Touchet, SCS State soil scientist, spent a lot of time with Mathieu during his 2-month tenure. (Photo by Herb Bourque.)

Touchet travels extensively to foreign countries relating his soils expertise in fluent French.

When Touchet met Clement Mathieu again in Africa, Renaud was there. The father asked Touchet about the possibility of his son going to the United States at his own expense to learn about soils and conservation programs of the United States. Touchet responded positively, and SCS volunteer history was made.

Mathieu was immediately amazed when he first arrived in the United States. "The size of your country...you have so much land," said Mathieu.

"In France we cannot have large wildlife areas because we are obligated to use as much land as possible for production. Here...when I look at the pastures, there is so much space for so few cattle."

While Mathieu was in Louisiana, he stayed at the Touchets' home.

"His lifestyle was a little different," said Annie Touchet, "but we

got along fine. The three of us did a lot of things together on weekends, and it helped us to learn about our two cultures."

Mathieu said he was thankful for the opportunity to volunteer and be placed in a setting where he had to converse in English only.

Mathieu has a bright future. He is continuing his undergraduate studies at the University in Toulouse in France and wants to continue his worldwide travels. When asked what he would ultimately like to do, he said, "I'd like to work in Africa someday and use wildlife to help people live better in many areas."

The Louisiana State office employees' and Mathieu's parting words were almost the same, "I hope our paths cross again someday"..."J'espere que nous nous croiserions encore quelque jour."

Herb Bourque, public affairs specialist, SCS, Alexandria, La.

"Both student volunteers worked extremely hard... It has been a pleasure working with them."

Taiwanese Students Volunteer in Mississippi

WHERE DO YOU go when you need computer assistance? To the experts or those studying to be experts, of course!

That's how the Starkville, Miss., Soil Conservation Service field office recruited two Earth

Team volunteers, Chyi Fang Lee and Ya Fu Ting, students from Taiwan who are attending Mississippi State University at Starkville.

Both students are majoring in computer science. They worked more than 700 hours on various projects for the SCS Mississippi information resources management section.

Lee completed an Embankment Pond Yardage program called "PONDY," designed by SCS computer systems analyst, Charlie Griffin, and coordinated with the State engineering staff. This software is being distributed for use statewide.

Ting programmed a menu system for the DOS computers in the field offices in Mississippi. This program, called USERMENU, is

very easy to use and allows easy access to other programs. USER-MENU has been distributed state-wide, and several other States are interested in using this program in their field offices.

Both of these programs are written in "C" language and follow SCS design specifications.

"Both student volunteers worked extremely hard on their projects," said Griffin. "They have been very cooperative and have done everything asked of them and more. It has been a pleasure working with them."

Becky T. McNair, public affairs specialist, SCS, Jackson, Miss.



Earth Team volunteers Chyi Fang Lee (left) and Ya Fu Ting discuss computer programs with Charlie Griffin, SCS computer systems analyst. (Photo by Tony Thompson.)

“...Darrell Reynolds, and I can split up and each take a volunteer. We can cover twice as much territory and get more work done.”

Volunteers Doing the Job in Virginia

MORE WORK IS getting done in the Soil Conservation Service field office in Boydton, Va.—without an increase in budget, equipment, training, or SCS employees.

How is this possible? Earth Team volunteers, that's how.

Earth Team volunteers worked over 1,000 hours in Boydton in the

last 2 1/2 years. This year the field office has 12 volunteers.

Some volunteers work in the office filing information, sending out mass mailings, and inputting conservation plans on the Computer Assisted Management and Planning System (CAMPs). Other volunteers work in the field doing conservation planning followups and construction checks.

Boyce Harvey, SCS district conservationist in Boydton, and Virginia's 1988 Earth Team District Conservationist of the Year, finds volunteers through responses from articles run in three newspapers. He also works with people who have been assigned community service hours by the county court system.

The news has spread quickly in the court system that the

Boydton field office is a good place to assign people. Harvey has his pick of volunteers now.

“Tremendously successful!” is how Harvey described the volunteer effort in his county. “My technician, Darrell Reynolds, and I can split up and each take a volunteer. We can cover twice as much territory and get more work done. Previously our two-person SCS staff had to work together.”

Jennifer Gessner, the field office's first volunteer, has been nicknamed “The Office Manager.” She earned this title by learning the CAMPs system on her own and training new volunteers on CAMPs.

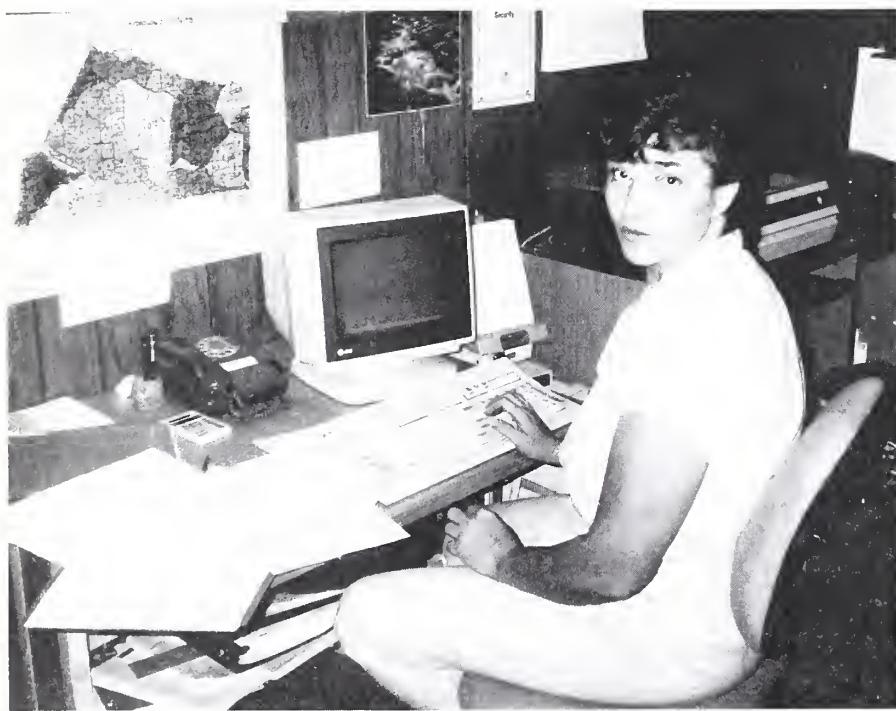
According to Harvey, Gessner is so dedicated that she often works extra hours on weekends in addition to her 20 to 30 volunteer hours a week.

Robert McBride, a recent addition to the Earth Team program, has become so proficient that he has been able to go out on his own to see if plans have been implemented or to offer assistance to those who need followup help on their plans.

McBride is a retired Marine with a degree in forestry and wildlife management who gains a sense of satisfaction by giving time back to the government.

All the volunteers have enjoyed working with SCS. They are pleased to be doing something worthwhile and the SCS staff appreciates their efforts.

Kim M. Berry-Brown, contributing editor, *Soil & Water Conservation News*, SCS, Washington, D.C.



Earth Team volunteer Jennifer Gessner, nicknamed “The Office General,” trains new volunteers in Boydton, Va. (Photo by Darrell Reynolds.)

[Volunteers] help measure stream flow, temperature, pH, dissolved oxygen [in Ferry County].

Volunteers Aid SCS Throughout Washington

FROM MEASURING water quality to inputting computer data, many volunteers across Washington State are helping the Soil Conservation Service.

William Funk, Washington State University water research center director, believes involvement at the county level is necessary to solve many of the State's nonpoint source pollution problems. He is enthusiastic about volunteer accomplishments in Washington State.

Earth Team volunteers in **Ferry County** are helping Loren Unruh, SCS district conservationist, and Jim Blake, Ferry County Conservation District (CD) hydrologist, on studies in the Trout Creek and Barrett Watersheds.

Elizabeth Brackney, Katherine Unruh, Marion Dammann, and Tim Coleman help measure stream flow, temperature, pH, dissolved oxygen, and alkalinity, and help sample coliforms.

In **Skagit County**, volunteer Dale Helm, assisted Steven Nissley, SCS district conservationist, by inputting data into the SCS Mt. Vernon field office Computer Assisted Management and Planning System.

Helm also prepared general news releases and Skagit CD news-



Dale Helm volunteered valuable hours to SCS's Mt. Vernon field office helping map Padilla Bay Watershed boundaries in Washington State. (SCS photo.)

letter articles, and he helped map the Padilla Bay Watershed boundaries.

In **Klickitat County**, David Kreft, SCS district conservationist, said that volunteer Julie Weyer's efforts in writing a water quality proposal helped obtain a grant for the Central Klickitat CD. The proposal allows for accelerated SCS conservation planning on highly erodible lands.

In **Columbia County**, SCS and the Washington State Extension Service (ES) are working with the Dayton High School to establish a cooperative student volunteer program.

John Eddy, SCS district conservationist, and Roland Schirman, ES agent, have held joint planning sessions with school officials, teachers, and counselors. They anticipate this program will provide valuable resource assistance and

expand students' hands-on experiences.

In the SCS State office in **Spokane**, John Wynecoop volunteered over 200 hours of computer assistance helping develop a resource inventory data base.

"The opportunity to work with SCS'ers like Garth Jensen, computer program analyst, has enhanced my school experiences," said Wynecoop. "Learning about and working with such a data base system should help in my future work."

"I feel good about my volunteer contributions to SCS. The work experience was relaxed, and it gave me a feeling of belonging," added Wynecoop.

Glenn Clark, State volunteer coordinator, SCS, Spokane, Wash.

...[volunteer] experience may help cultivate future leaders in natural resource management and encourage students to continue their education...

Wisconsin Students Get Work Experience

NINE STUDENTS from "magnet" high schools in Milwaukee, Wisc., have gone to work for the Soil Conservation Service through its Cooperative Education Program. They are working in three SCS field offices.

In a magnet system, certain schools offer curriculums such as science or computers that will appeal to students with specific career goals. Like the students, SCS was attracted by the magnets.

Enumerating the benefits for SCS, Theodore Manning, an area conservationist for southeastern Wisconsin, says about the Cooperative Education Program: "...it gives students a chance to look at SCS as a future career possibility, and it also helps SCS recruit underrepresented groups for employment."

Manning added that the experience may help cultivate future leaders in natural resource management and encourage students to continue their education beyond high school.

Specialty programs like this should develop special skills not found in most high schools, shouldn't they? Yes, says Fay Amerson, former soil conservation-



Student interns Anamaria Vasquez, left, an agribusiness/natural resources major, and Terrence Bowers, an electronics major, help SCS complete highly erodible land determinations.

ist at the Waukesha field office, serving cooperators in Milwaukee County.

Amerson was SCS's liaison to the Cooperative Education Program and initiator of the agreement with the Milwaukee school district. She highly praises the students and their work.

The cooperative program might never have developed as well as it has if Amerson hadn't found a way to get students into the SCS field offices. During the first summer of the program, Amerson's student trainees settled into space donated by the Milwaukee Enterprise Center. The district conservationists in the cities of Washington, Jefferson, and Ozaukee brought work in to the students, who were trying to determine which lands were most susceptible to erosion.

While this experience got the program off the ground, and the students did a lot of useful work,

Amerson still wasn't satisfied. She felt these 16- and 17-year-olds could have a more fulfilling experience by working in SCS field offices. But transportation to outlying field offices was a dilemma.

The following spring she discovered Job-Ride, a State-funded program to transport workers from Milwaukee to jobs in outlying cities. The local Goodwill Industries, a Job-Ride contractor, provided a van and driver to pick up the students at their homes early each morning and return them after their work day—at no cost to SCS or the student.

"It was the best thing that happened," said Amerson. "Job-Ride is a community angel!"

SCS is now considering Cooperative Education Programs with other urban school districts—in the cities of Racine, Madison, and Green Bay—to find trainees for its field offices around the State.

In order to increase the number of SCS field offices suitable for assignments, students are encouraged to make living arrangements with nearby rural families for their period of summer employment. This experience, similar to "foreign exchange" programs, can eliminate transportation problems and broaden understanding between urban and rural people.

Cheryl Rouse Manning, Earth Team volunteer, SCS, Beaver Dam, Wisc.

Talented Volunteers Help SCS In Iowa

IN ANKENY, IOWA, some people think of Steven Manternach as Mr. Earth Team.

Manternach, Soil Conservation Service district conservationist, promoted the volunteer concept in Ankeny and has organized a varied team of multitalented volunteers.

"I wanted to mix ages, abilities, and levels of enthusiasm," said Manternach. "Having a diverse Team has been educational to the members, our field staff, and to the cooperators we assist."

Mary McCool, Marv Madison, and Randy Rodger were directed to the Earth Team by the Vocational Rehabilitation Center. Tuan Pham was available through the



Lisa Avery, SCS Ankeny field office secretary (rear), helps volunteer Mary McCool prepare letters to landowners to accompany completed conservation plans and Food Security Act obligations. (SCS photo.)

"I wanted to mix ages, abilities, and levels of enthusiasm...a diverse Team has been educational to the members, our field staff, and to the cooperators..."

Job Training Partnership Act. Jim Jernstad and Avery Johnson were recruited through the Retired Seniors Volunteer Program.

Becky Herrold found out about volunteering at the Wellness Center, where she works. Volunteers Norman Springston, Jr., and Steve DeCook attend local colleges.

Manternach also receives volunteers through the community service sentencing program.

Manternach and his Ankeny field office staff trained, explained, and involved the Team in many soil and water conservation activities.

"Showing the volunteers how to assist us in highly erodible land and conservation reserve planning determinations sharpened our own teaching skills," said Stephanie King, SCS soil conservationist at Ankeny, "and improved our own understanding of Food Security Act (FSA) conservation activities."

Other volunteer activities were inputting data into the Computer Assisted Management and Planning System, mailing letters to landowners concerning FSA obligations, preparing art and design layouts for Polk County Soil and Water Conservation District (SWCD) calendars, obtaining photos for the district newsletter, and assisting in word processing, filing, answering the phone, and other field office activities.

"One of the Team volunteers, 'JR' Springston, became so proficient and knowledgeable that we use him to teach new volunteers," said Manternach. "He's learned quickly and has 'natural' teaching instincts. We learn a lot about teaching by just watching him teach."

Award Winner

Steven Manternach recently won the SCS Earth Team District Conservationist of the Year award for 1989, to be presented to him in spring 1990 in Washington, D.C.

Manternach consults with his staff and with Jerry Long, Polk County SWCD board chairman, about current conservation program needs and about conservation services that SCS and the district can now provide, thanks to assistance from Earth Team volunteers.

"Volunteers donated nearly 1,400 hours in Fiscal Year 1989," said Long. "The district program has greatly benefited from Earth Team activities."

Manternach, Long, and the SCS field office staff are firmly committed to the Earth Team volunteer program. They want to attract more volunteers and want to incorporate additional activities into the program to even better use the volunteers' varied talents.

"Volunteers get to learn new skills and responsibilities," said McCool. "The work experience has really helped me prepare for future employment."

"Steven Manternach has been recognized in Iowa for his efforts with the volunteer program," said J. Michael Nethery, State conservationist. "Last year he received the Iowa Dan B. Murphy Award."

"His dedication and use of the volunteer program is a credit to Iowa's Earth Team volunteer program," Nethery added.

Paul G. DuMont, associate editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

Conservation

Permanent Cover Crop Found for Vineyards

TO KEEP GRAPE production a viable agricultural business in New York State, vineyard managers had to find a way to master the problem of soil erosion.

Many vineyards in the State are established on steep slopes. These locations provide optimum grape growing environments because of natural air drainage patterns and inherent soil properties. With many New York soils shallow-to-bedrock or having a fragipan within 24 inches, the extensive loss of the topsoil has caused a slow decline in vineyard production and vine vigor over the years.

Vineyard rows are planted across the general slope in straight lines to accommodate the mechanical harvesting machines (pickers). Soil and water conservation practices such as diversions and drainage systems are utilized to a limited degree in reducing erosion. Traditionally, temporary cover crop is planted in late August and disked into the soil the following spring. This leaves the ground bare for the summer months.

Several vineyard owners, including the Taylor Wine Company, approached the Soil Conservation Service with questions about a vegetative management system that would provide an economical, man-

ageable, and effective permanent cover crop in vineyard aisles. Many questions were raised: how would a permanent cover crop fit current vineyard management practices? How would it affect vine growth and grape yield?

A cooperative study between the Taylor Wine Company and the SCS Big Flats Plant Materials Center in Corning, N.Y., was conducted between 1980 and 1984 to develop permanent vineyard cover crop recommendations.

The 1,800-acre winery, located in Hammondsport, N.Y., in the Finger Lake Region, donated existing vineyard aisles for the study. Treatments were tested on four aisles, each 500 feet long. Just prior to seeding, each vineyard aisle was disked twice and 500 pounds per acre of 5-10-10 fertilizer was broadcast. All seedings were done with a Brillion-type seeder/cultipacker. 'Pennlawn' red fescue was seeded at 15 pounds per acre and 'Lynn' perennial ryegrass was seeded at 5 pounds per acre.

The data from the study were collected by both the plant materials center and the winery. Grape yields and pruning weights were monitored over the 4 years. The results were a pleasant surprise to everybody: there was no significant difference in harvest yields and pruning weights between permanent cover crop and winter oats/cultivation techniques. Both 'Pennlawn' and 'Lynn' provided excellent cover at all sites with an average of 88 to 97 percent cover.

As a result of the study, Taylor Wine has planted additional acreage of its vineyards to these perennial cover crops. The managers discovered several side benefits



from the permanent cover. Because the vineyard aisles need to be mowed only twice a season, maintenance costs are reduced. The initial cost of establishing the vegetative cover is also low and can be accomplished with equipment already available in vineyards.

One surprising side benefit of the cover crop came during the first harvesting season after a vineyard was seeded to the cover crop. There is an optimum period of time for harvesting grapes. Before the seeding of the cover crop, if this time fell in a wet period, the pickers used to get hopelessly bogged down in mud, thus slowing up the harvest. With the sod vegetation, the mechanical harvesters travel down the rows of vines with excellent traction.

However, New York vineyard managers who have planted a cover crop are realizing bigger primary benefits: cost-effectiveness, compatibility with current vineyard management systems, and improved long-term profits because of a more successful erosion control program.

Martin van der Grinten, manager, Big Flats Plant Materials Center, SCS, Corning, N.Y., and **Fred Gaffney**, conservation agronomist, SCS, Syracuse, N.Y.

In Action

Native Road-side Plants Return

IOWANS USED TO be able to drive down roads edged with wildflowers and feathery native grasses blooming in colorful profusion. This is what they saw from wagon trains, too.

Later, when roads were modernized, the roadsides were modified and the native vegetation was replaced with introduced cool season grasses. However, because the grasses weren't always adapted to the climate or site, weeds and erosion often became a problem. Then chemical weed eradication programs became necessary.

"Herbicide use nearly doubled in the last decade, with little or no effect on weed eradication," said Al Ehley, a Soil Conservation Service soil conservationist who is at present working with the University of Northern Iowa as a state roadside management specialist. "Some

counties sprayed half their roadsides one year and half the next, but the weeds kept coming back."

A new roadside vegetation management program has been implemented in Iowa, because of the inadequacy of the former weed control program. The program began in 1987 as a cooperative effort between SCS, the University of Northern Iowa, and Blackhawk County. Eleven Iowa counties are currently in the program and another 26 counties are in some phase of developing and adapting it for their use. The benefits are many.

"Besides the aesthetic improvement, county government will spend considerably less than they did in the past on roadside management," said Ehley. "With prairie grasses and wildflowers well established, counties won't need as huge a herbicide program, they will be mowing less, and, as an added bonus, water quality and wildlife habitat will be improved." Roadside nesting studies in counties that have already implemented the program, have shown a 25 percent increase in pheasant nests along the newly planted roadsides.

"A lot of people have complained about spraying," said Rob Bouda,

former roadside biologist for Lee County. "People's choice seems to be to mow first, burn second, and spray last." Bouda said that "Lee County hasn't blanket sprayed for two years now."

Bouda also said that ditch cleaning is a big problem. "Last year, this county spent \$80,000 in cleaning ditches," he said. "It's several million dollars Statewide." He encourages farmers to take advantage of Federal set-aside programs to seed field borders to grass. "That creates a buffer zone that helps trap sediment," he continued.

Conservation practices such as conservation tillage and terracing are also being encouraged to further reduce sediment damage along roadsides.

The weed prevention program revolves around use of vegetative types that are well suited to Iowa's varying climatic conditions. Once established, the native grasses can actually prevent many noxious weeds from appearing.

Funding for the roadside management program was recently appropriated by the Iowa Legislature. The legislation also provided for the establishment of the State roadside specialist position at the University of Northern Iowa.

"These grasses and wildflowers have been around Iowa for thousands of years," said Ehley. "Overall, there's nothing better for a roadside, for birds and wildlife, and for sheer enjoyment, than our own native prairie grasses and flowers."

Colleen Weinzettl, public affairs specialist,
SCS, Des Moines, Iowa



"The NRI [is] one of our most important sources of information for soil and water conservation activities..."

Five-Year Inventory Completed

DID YOU KNOW that sheet and rill erosion on cropland decreased one-half ton per acre between 1982 and 1987?

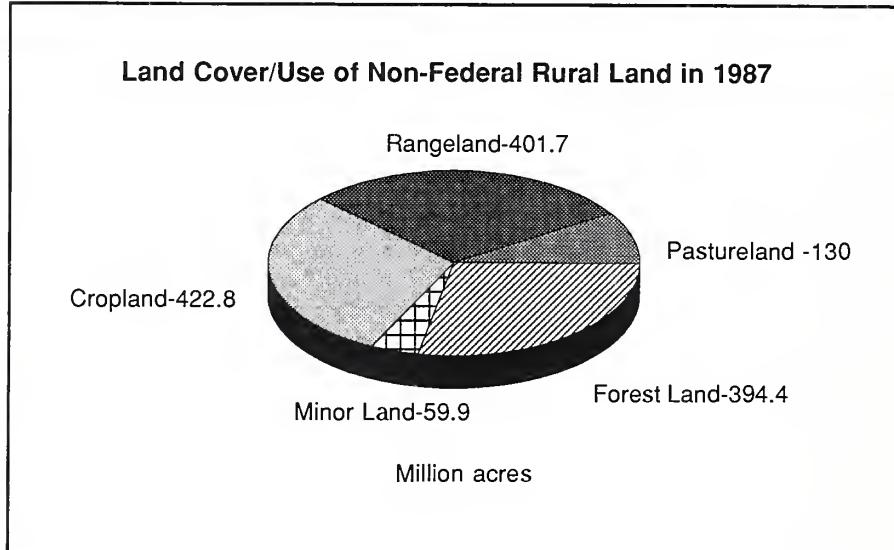
Did you know that cropland acreage increased in those 5 years, despite conversions of agricultural land to developed (nonagricultural) uses?

Statistics can be baffling as well as tedious. Or they can be useful and broaden one's understanding of a subject.

The Summary Report of the 1987 National Resources Inventory (NRI), released in December 1989, has many useful statistics. The report can broaden one's understanding about updated conditions of the Nation's soil, water, and related resources on rural non-Federal land and about trends in resource use.

"The NRI has become one of our most important sources of information for soil and water conservation activities," said SCS Chief Wilson Scaling. "In this latest NRI, we've updated information from the 1982 NRI, and we've made comparisons between the two inventories."

SCS conducts the NRI every 5 years. During the 1987 growing season, field personnel collected data at 300,000 sample points nationwide.



The report documents the Nation's resource conservation accomplishments and future needs. (It does not reflect land treatment changes due to conservation provisions of the Food Security Act (FSA) of 1985.) Some of the NRI highlights follow:

- Rural non-Federal land totaled 1.4 billion acres in 1987: cropland, 422.8 million; rangeland, 401.7 million; pastureland, 130.0 million; forestland, 394.4 million; and minor land uses, 59.9 million.
- Between 1982 and 1987, cropland increased 1.4 million acres. This occurred due to rangeland and pastureland conversions to cropland, and because the total of irrigated cropland increased.
- Average annual sheet and rill erosion on cropland was 4.3 tons per acre for 1982 and 3.8 tons per acre for 1987; this is a decrease of 0.5 ton per acre. Wind erosion increased slightly from 1982 to 1987.
- Conservation tillage was practiced on 110 million acres of crop-

land in 1987, with mulch-till and reduced-till forms predominating; it was not measured in the 1982 NRI.

Many Federal and State agencies use NRI data. The U.S. Department of Agriculture used the 1982 NRI data to help identify fragile lands to be protected by FSA and other legislative actions. SCS uses NRI data to identify the extent of highly erodible lands and to target resources for controlling potentially excessive erosion.

Private organizations and individuals use it to address soil, water, and related conservation issues.

The Summary Report is available for review at SCS State offices. More comprehensive findings are scheduled for publication in July 1990.

Paul G. DuMont, associate editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

CRP Nears 34 Million Acres

The Soil Conservation Service estimates soil erosion on land in the Conservation Reserve Program (CRP) will be reduced from 20.9 to 1.6 tons per acre per year after permanent vegetation is established.

To date, nearly 34 million acres have been enrolled in CRP. This includes 3.3 million acres enrolled in the ninth signup that ended in August 1989.

Participants in CRP sign a contract to keep erodible and environmentally sensitive cropland out of production and in a conserving use for 10 years.

The five States with the most erosion reduction projected per year are Texas, Colorado, Kansas, North Dakota, and Iowa.

As a result of the CRP, soil erosion on the Nation's cropland will be reduced 655 million tons a year when the conservation practices are installed, according to Wilson Scaling, Chief of the Soil Conservation Service.

"We already can see benefits of the program—in less sedimentation, increased habitat for wildlife, and improved water quality," said Scaling.

CRP also plays a major role in the U.S. Department of Agriculture water quality efforts. CRP helps protect the Nation's water resources through the use of nearly 50,000 acres of filter strips, which are vegetative strips 66-99 feet wide that trap sediment, nutrients, and pesticides along water bodies.

To enroll in CRP, farmers submitted bids to USDA's Agricultural

Stabilization and Conservation Service and receive an annual rental payment for putting their land into protective cover, such as grass or trees.

The average rental rate nationwide is \$49 per acre for all acreage enrolled since CRP began.

Lincoln Univ., SCS, AT&T Form Partnership

The Soil Conservation Service in Missouri has entered into an unusual partnership with Lincoln University and AT&T that should increase the number of skilled natural resource graduates.

SCS will provide technical assistance and \$125,000 to help the University develop a microcomputer lab. AT&T will donate computers, printers, and other equipment worth about \$250,000.

Lincoln University, located in Jefferson City, Mo., is the oldest of a group of historically black colleges established under the Second Morrill Act of 1890. The colleges are best known as the "1890 colleges" because of the year in which they received land-grant status.

The lab will be housed in Lincoln's Bennett Living-Learning Center, which is devoted to agriculture and natural resource students. The Center will also be a residence for some 70 students.

SCS will have access to this state-of-the-art facility, which is expected to become a main computer training center for SCS em-

ployees in Missouri and other States.

But the biggest benefit for SCS, according to Missouri State conservationist Russell Mills, is that the facility will greatly aid SCS's recruitment of highly skilled natural resource graduates. Mills sees the agreement as a way to ease the shortage of natural resource professionals.

"To meet needs outlined by the USDA Workforce 2000 report, we need well-trained, highly motivated female and minority college graduates," Mills said.

The University expects the Center to help it attract and train top students in agriculture, natural resources, and home economics.

"I'm truly pleased with the outstanding support given by SCS," said Lincoln University President Wendell Rayburn. "It reaches beyond the monetary contribution. It will provide the catalyst to get this program going. We will be creating a truly unique educational environment."

Charlie Rahm, public affairs specialist, SCS, Columbia, Mo.

Earth Day Celebrates 20th Birthday

During the week of April 22, people around the world will join together to celebrate the 20th anniversary of Earth Day.

Twenty years ago this month, an estimated 20 million Americans

used Earth Day as a vehicle to demonstrate their environmental concerns.

The U.S. Congress adjourned for the day so that members could attend teach-ins and numerous other civic and educational events in their districts. Organizations held activities calling attention to the need to preserve the United States' natural heritage.

This year, Earth Day 1990 is being coordinated at Stanford University. Local governments, civic and educational organizations, youth clubs, and environmental groups have planned local activities to stress that national resources are valued everywhere.

Activities will range from single events celebrating a community's appreciation of the outdoors to projects that lay the groundwork for future community planning and action.

Communities plan their own celebrations based on their unique needs, interests, and resources. The national scope of the observation underscores Federal and State cooperation with local communities to stimulate action for parks, outdoor recreation, open space, and greenways.

Community projects include cleanup of parks, rivers, empty lots, streets, and alleys; plantings of wild flowers, trees, native plant species, and urban vegetable or flower gardens in parks; school activities, such as poster and essay contests, garden or lab projects, and field trips; seminars and other discussion forums on historic preservation, soil conservation, water quality, and creation and financing of parks and greenways; and local

park and recreation department activities.

A number of environmental and civic groups have formed an umbrella organization called the National Celebration of the Outdoors, which will also observe the week of April 22. The Conservation Foundation is serving as headquarters for the nationwide campaign.

More than 20 organizations are participating in the Celebration. They include the American Farmland Trust, Boy Scouts of America, Environmental Defense Fund, Garden Club of America, Girl Scouts of the U.S.A., Izaak Walton League of America, National Geographic Society, U.S. Conference of Mayors, and Wilderness Society.

Awardees David and Beverly Salomon have 1,380 acres of corn, soybeans, wheat, and hay on their farm in Churubusco, Ind. Their conservation practices include conservation tillage, grassed waterways and filter strips, grade stabilization structures, crop rotations, and woodland management.

Awardees John and Stacy Murdock were commended for their commitment to conservation on their 800 acres of livestock, tobacco, and other crops on their farm in Murray, Ky. Conservation tillage, residue management, pasture and hayland management, diversion ditches, grassed waterways, and woodland improvement are among their many conservation practices.

Rancher Frank Bohman, another winner, said, "I believe that each of us has an obligation to treat our land with respect and to try and leave it a little better than we found it."

On his 4,155-acre livestock ranch in Morgan, Utah, Bohman has installed rotational grazing, crop rotation, range seeding, wildlife habitat improvement, and spring developments.

Emmet Barker, National Endowment chairperson, said the national winners' innovative and cost-effective operations show that soil and water conservation can be achieved voluntarily. Good stewardship is good business, he added.

Kim M. Berry-Brown, contributing editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

Conservation Winners Named

Farm and ranch families from Indiana, Kentucky, and Utah were recently named the 1989 national winners at the Seventh Annual Outstanding Conservation Farmer/Rancher awards program.

The program is sponsored by the National Endowment for Soil and Water Conservation and funded by the Du Pont Company.

Winners received \$1,000 cash awards from Du Pont and award certificates at the White House in December 1989. They also met with Members of Congress and officials of the U.S. Department of Agriculture, Environmental Protection Agency, and other agencies.

Dynamics of Soil Organic Matter in Tropical Ecosystems

Edited by David C. Coleman, J. Malcolm Oades, and Goro Uehara

This is a book for people with a serious interest in the subject of soil organic matter either inside or outside the Tropics. It was written in an attempt to identify gaps in knowledge, prescribe corrective measures, and formulate research priorities related to ecological interactions that regulate organic matter dynamics in tropical ecosystems. Most of the developing nations of the world are located in the Tropics, areas dominated by

poor soils, unfavorable climates, or both.

Another important objective of the book was to bring together scientists from diverse disciplines and provide them the opportunity to interact and "brainstorm" on controversial issues related to quantity and quality of organic matter in tropical soils. They also considered the role it might play in restoring fertility and productivity of agricultural and forestry systems in the Tropics.

Funding for the book was provided by the National Science Foundation Ecology Program, which realized the powerful potential of tackling this complex subject through such a meeting of the top minds in the field.

Seven key topics are included: constituents of organic matter in temperate and tropical soils; soil organic matter as a source and a

sink of plant nutrients; interactions of soil organic matter and variable-charge clays; biological processes regulating organic matter dynamics in tropical soils; organic input management in tropical agro-ecosystems; modeling soil organic matter dynamics in tropical soils; and methodologies for assessing the quantity and quality of soil organic matter.

Each chapter ends with research imperatives suggested for future exploration. It also has an extensive literature citation section.

Hardback copies are available from the NiFTAL Project, Department of Agronomy and Soil Science, College of Tropical Agriculture and Human Resources, University of Hawaii, 2840 Kolowalu Street, Honolulu, HI, 96822; Attention: Order Department, University of Hawaii Press.

Water Quality Indicators Guide: Surface Waters

By Charles R. Terrell and Dr. Patricia Bytnar Perfetti

This is a new technical publication (SCS-TP-161) to assist field personnel in evaluating agriculturally re-

lated, surface water-quality conditions. The guide is ecologically based and its field sheets can be used to assess water quality situations associated with sediment, nutrients, animal wastes, pesticides and salts.

The paperback book discusses water quality pollutants and has colored plates of organisms associated with clean and polluted waters. There are ecological explanations for conditions, such as eutrophication, biochemical oxygen

demand, chemical biomagnification, and others. In addition to the field sheets, the appendixes have other field methods with accompanying identification diagrams and instructions that can be used to assess water quality.

Copies are available in SCS State offices. Additional copies of the guide can be ordered from the SCS Distribution Unit on Form SCS-INF-37.

Moving?

Send present mailing label and new address including zip code to:

U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 2890, Room 6002-S
Washington, D.C. 20013-2890

BULK RATE
POSTAGE AND FEES PAID
USDA-SCS
WASHINGTON DC
PERMIT NO. G-267

Official Business
Penalty for private use, \$300

Conservation Calendar

April	2-5	American Forage & Grassland Council Conference, Roanoke, Va.
	3-5	AgTechnology 90, St. Louis, Mo.
	3-6	National Peanut Council Convention, Marco Island, Fla.
	9-12	Plant Resistance To Insects: Toward A More Sustainable Agriculture, College Park, Md.
	16	Hudson Institute Conference on Global Trends in Food, Farms and Technology, Indianapolis, Ind.
	18	Land-Grant Colleges Meeting, Washington, D.C.
	22	Earth Day
	22-24	Millers National Federation Convention, Rancho Mirage, Calif.
	22-25	National Agri-Marketing Association's 1990 Agri-Marketing Conference, St. Louis, Mo.
	27	National Arbor Day
May	7-13	Public Service Recognition Week, Washington, D.C.
	10-13	American Feed Industry Association Convention, Reno, Nev.
	20-26	8th International Congress on Nitrogen Fixation, Knoxville, Tenn.
	29-June 1	International Conference on Issues in Food Safety & Toxicology, East Lansing, Mich.
June	2-4	World Pork Expo, Des Moines, Iowa
	3-5	National Ag in the Classroom Conference, Washington, D.C.
	6-8	Rice Millers' Association Convention, Orlando, Fla.
	16-19	National Rally, 1990: "Strength through Diversity," The Land Trust Exchange, Villanova, Pa.
	17-20	International Apple Institute Convention, Nashville, Tenn.
	17-20	Grocery Manufacturers of America Convention, White Sulphur Springs, W. Va.
	19-21	Corn Utilization Conference III, St. Louis, Mo.
	24-27	American Society of Agricultural Engineers International Summer Meeting, Columbus, Ohio
	25-29	American Seed Trade Association Convention, Orlando, Fla.
	26-29	History of 1890 Land-Grant Colleges and Universities Centennial Symposium, Tallahassee, Fla.